

101.3 - Special Low Alloy Steels (chip and pin forms)

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	361	363	364	2159	2160	2165	2166	2167	2168
Description	AISI 4340 Steel	Chromium-Vanadium Steel (Modified)	LA Steel, High C (mod.)	LA Steel, Carbon & Sulfur only	LA Steel, Carbon & Sulfur only	Low Alloy Steel	LA Steel, F	LA Steel, G	High Purity Iron
Unit of Issue	(150 g)	(150 g)	(150 g)	(200 g)	(200 g)	(150 g)	(150 g)	(150 g)	(150 g)

Elemental Composition (mass fraction in % unless noted by an asterik * for mg/kg)

Aluminum (Al)	0.021	0.24	(0.008)		(0.006)	0.012	0.0045	(4*)
Antimony (Sb)	0.0042	0.002	0.034		0.0010	0.0005	0.0020	(<3*)
Arsenic (As)	0.017	0.010	0.052		0.0010	0.0035	0.0005	(<1*)
Bismuth (Bi)	(0.0004)	(0.0008)	(0.009)		(<0.0001)	(<0.0001)	(<0.0001)	(<3*)
Boron (B)			0.0106		0.000944	4.365*	9.72*	0.064*
Cadmium (Cd)								(<1*)
Calcium (Ca)	0.00010	0.00022	0.00003					(<2*)
Carbon (C)	0.383	0.62	0.87	0.016	0.584	0.0063	0.015	10*
Cerium (Ce)	0.0040	0.0030	0.00057					
Chromium (Cr)	0.694	1.31	0.063			0.050	0.024	0.0015
Cobalt (Co)	0.032	0.048	0.15			0.0012	0.0022	0.0050
Copper (Cu)	0.042	0.10	0.249			0.0013	0.015	0.0014
Germanium (Ge)	[0.006]	[0.010]	[0.003]					
Gold (Au)	(<0.00005)	0.0005	0.0001					
Hafnium (Hf)	(0.0002)	(0.0005)	(0.0013)					

Elemental Composition (mass fraction in % unless noted by an asterik * for mg/kg)

Hydrogen (H)	(<0.0005)	(<0.0005)	(<0.0005)					
Iron (Fe)	(95.6)	(94.4)	(96.7)					
Lanthanum (La)	(0.001)	(0.002)	(0.0002)					
Lead (Pb)	0.000025	0.00186	0.0230		0.0003	0.003	(<0.0001)	(<1*)
Magnesium (Mg)	0.00026	0.00062	0.00016		(<0.0001)	(<0.0001)	(<0.0001)	(<3*)
Manganese (Mn)	0.66	1.50	0.255		0.144	0.066	0.022	6*
Molybdenum (Mo)	0.19	0.028	0.49		0.0055	0.0035	0.020	(<7*)

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Neodymium (Nd)	0.00075	0.0012	0.00018				
Nickel (Ni)	2.00	0.30	0.144	0.155	0.022	0.002	10*
Niobium (Nb)	0.022	0.049	0.157	0.0004	0.005	0.0095	(<5*)
Nitrogen (N)	(0.0037)	(0.0041)	(0.0032)				6*
Oxygen (O)	(0.0009)	(0.00066)	(0.0010)				110*
Phosphorus (P)	0.014	0.029	0.01	0.0052	0.0012	0.0031	14*
Praseodymium (Pr)	(0.0003)	(0.0004)	(0.0001)				
Selenium (Se)	(0.004)	(0.00016)	(0.00021)	(0.0035)	(0.0035)		(<5*)
Silicon (Si)	0.222	0.74	0.065	(0.004)	0.010	0.026	(<5*)

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Silver (Ag)	0.0004	0.0037	(0.00002)	0.0002	0.0005	0.0007	
Strontium (Sr)	(<0.0005)	(<0.0005)	(0.001)				
Sulfur (S)	0.0143	0.0068	0.0250	0.0023	0.012	0.003643	0.002164
Tantalum (Ta)	0.020	(0.53)	0.11		(0.004)	(0.011)	(0.002)
Tellurium (Te)	(0.0006)	(0.0009)	(0.0002)		(0.003)	(0.003)	(0.0003)
Tin (Sn)	0.010	0.104	0.008		0.002	0.0010	0.006
Titanium (Ti)	0.020	0.050	0.24		0.0051	0.0007	0.010
Tungsten (W)	0.017	0.046	0.10				(<10*)
Vanadium (V)	0.011	0.31	0.105		0.0040	0.009	0.033
Zinc (Zn)	(0.0001)	(0.0004)	[0.001]				(<5*)
Zirconium (Zr)	0.009	0.049	0.068		(0.0004)	(0.004)	(<5*)

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